



Process for Purification

Fig. 1a

BETA_ta
 PUP3_sc b3
 C11_sc b4
 C5_sc b6
 PRE4_sc b7
 PUP1_sc b2
 MEC L1_hu
 PRE2_sc b5
 X_hu
 LMP7_hu
 PRE3_sc b1
 Y_hu
 LMP2_hu

1 10 20
TTTVGITLKD AVIMATERRVT
 MSDPSSINGGIVVAMTGKDCVAIACDLRLG
MDIILGIRVQDSVILASSKAVT
 QFN PYGDNGGTILGIAGEDFAVLAGDTR.N
 .TQQPIVTGTTSVISMKYDNGVIIIAADNLGS
TTIIVGVKFNFNGVVIAADTRST
 TTIAGLVFQDGVLGADTRAT
TTTLAFRFQGGIIIVAVDSRAT
 TTTLAFKFRHGVI VAAVDSRAT
TTTLAFKFQHGVIAAVDSRAS
 TSIMAVTFKDGVILGADSRRT
TTIMAVQFDGGVVLGADSRRT
 TTIMAVEFDGGVVMGSDSRSVS

BETA_ta
 PUP3_sc b3
 C11_sc b4
 C5_sc b6
 PRE4_sc b7
 PUP1_sc b2
 MEC L1_hu
 PRE2_sc b5
 X_hu
 LMP7_hu
 PRE3_sc b1
 Y_hu
 LMP2_hu

L 30 40 50
 MENFIMHKNGK.KLFQIDTYTGMIAGLVG
 SQSLGVSNKFE.KIFHYG.HVFLGITGLAT
 RGISVULKDSDD.KTRQLSPHTLMSFAGEAG
 ITDYSINSRYEPKVFDGDNIVMSANGFAA
 YGSLLRFNGVE.RLIPVGNDNTVVGISGDIS
 QGPIVADKNCA.KLHRISPKIWCAGAGTAAN
 ND SVVADKSCE.KIHFIAPKIYCCGAGVAA
 AGNWVA SQTVK.KVIEINPFLLGT MAGGAA
 AGAYIASQTVK.KVIEINPYLLGT MAGGAA
 AGSYISALRVN.KVIEINPYLLGT MSGCAA
 TGAYIANRVT.D.KLT RVHD KIWCC.RSGSAA
 TGSYIANRVT.D.KLT PIIHDRI FCCRSGSAA
 AGEAVVN RVFD.KLSPLHERIYCALSGSAA

BETA_ta
 PUP3_sc b3
 C11_sc b4
 C5_sc b6
 PRE4_sc b7
 PUP1_sc b2
 MEC L1_hu
 PRE2_sc b5
 X_hu
 LMP7_hu
 PRE3_sc b1
 Y_hu
 LMP2_hu

H 1
 60 70
 DAQVLVR YMKA ELELYR...LQR RVN.MP
 DVTTLNEMFRYKTNLYK...LK.EERAIE
 DTVQFAEYI QANIQLYS...IREDY.E.LS
 DGDALVKRFKNSVKWYH...FDHNDKKLS
 DMQHIERLLKDLVTENAYDNPLADAEEALE
 DTEAVTOLIGSNIELHS...LYTSRE.PR
 DAEMTTRMVA SKMELHA...LSTGRE.PR
 DCQFWETWLGSQCRLHE...LREKER.IS
 DC SFWE RLLARQCRIYE...LRNKER.IS
 DCQYWE RLLAKECRLYY...LRNGER.IS
 DTQAIADIVQYHLELYT...SQYGT P.S.
 DTQAVA DAVT YQLGFHS...IELNEP.PL
 DAQAVA DMAAYQLEIHG...IELEEP.PL

2923-0130 SN 59381, 786

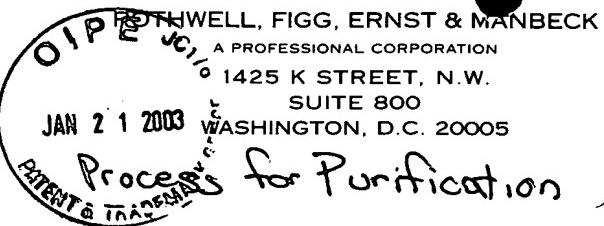
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Process for Purification

Fig. 1b

BETA_ta
PUP3_sc b3
C11_sc b4
C5_sc b6
PRE4_sc b7
PUP1_sc b2
MECL1_hu
PRE2_sc b5
X_hu
LMP7_hu
PRE3_sc b1
Y_hu
LMP2_hu

H 2

80 90 100

I E A V A T L L S N M L N Q V . . . K Y M P Y M V Q L L V G G
P E T F T Q L V S S S L Y E . . . R R F G P Y F V G P V V A G
P Q A V S S F V R Q E L A K S I R S R R P Y Q V N V L I G G
I N S A A R N I Q H L L Y G . . . K R F F P Y Y V H T I I A G
P S Y I F E Y L A T V M Y Q R R S K M N P L W N A I I V A G
V V S A L Q M L K Q H L F K Y . . . Q G . H I G A Y L I V A G
V A T V T R I L R Q T L F R Y . . . Q G . H V G A S L I V G G
V A A A S K I L S N L V Y Q Y . . . K G A G L S M G T M I C G
V A A A S K I L L S N M M C Q Y . . . K G M G L S M G T M I C G
T E T A A S V F K E L C Y E N . . . K D . N L T A G I I V A G
V H T A A S L F K E M C Y R Y . . . R E . D L M A G I I I A G
V L A A A N V V R N I S Y K Y . . . R E . D L S A H L M V A G

BETA_ta
PUP3_sc b3
C11_sc b4
C5_sc b6
PRE4_sc b7
PUP1_sc b2
MECL1_hu
PRE2_sc b5
X_hu
LMP7_hu
PRE3_sc b1
Y_hu
LMP2_hu

S 5

110 120

I D T . . A . P H V F S I D A A G G S V E . D I Y A S T G S
I N S K S G K P F I A G F D L I G C I D E A K D F I V S G T
Y D K K K N K P E L Y Q I D Y L G T K V E . L P Y G A H G Y
L D . E D G K G A V Y S F D P V G S Y E R . E Q C R A G G A
V Q S . N G D Q F L R Y V N L L G V T Y S . S P T L A T G F
V D P . T G . S H L F S I H A H G S T D V . G Y Y L S L G S
V D L . T G . P Q L Y G V H P H G S Y S R . L P F T A L G S
Y T R K E G . P T I Y Y V D S D G T R L K . G D I F C V G S
W D K R . G . P G L Y Y V D S E G N R I S . G A T F S V G S
W D K K . G . P G L Y Y V D E H G T R L S . G N M F S T G S
Y D D K N K . G E V Y T I P I L G G S V H K . L P X A I A G S
W D P Q E G . G Q G Y S V P M G G M M V R . Q S F A I G G S
W D Q R E G . G Q V Y G . T L G G M L T R . Q P F A I G G S

BETA_ta
PUP3_sc b3
C11_sc b4
C5_sc b6
PRE4_sc b7
PUP1_sc b2
MECL1_hu
PRE2_sc b5
X_hu
LMP7_hu
PRE3_sc b1
Y_hu
LMP2_hu

H 3

130 140

G S P F V Y G V L E S Q Y S E K
A S D Q L F G M C E S L Y E P N
S G F Y T F S L L D H H Y R P D
A A S L I M P F L D N Q V N F K N Q Y E P G T N G K V K K P
G A H M A N P L L R K V V D R E S D I P K T
G S L A A M A V L E S H W K Q D
G Q D A A L A V L E D R F Q P N
G Q T F A Y G V L D S N Y K W D
G S V Y A Y G V M D R G Y S Y D
G N T Y A Y G V M D S G Y R P N
G S T F I Y G Y C D K N F R E N
G S S Y I Y G Y V D A T Y R E G
G S T F I Y G Y V D A A Y K P G

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Process for Purification

Fig. 1c

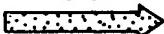
H 4



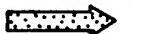
BETA_ta
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C11_sc b4
C5_sc b6
PRE4_sc b7
PUP1_sc b2
MECL1_hu
PRE2_sc b5
X_hu
LMP7_hu
PRE3_sc b1
Y_hu
LMP2_hu

150 160 170
....MTVDEGVDLVIRAISSAAKQRDSASGGM
....LEPEDLFETISQALLNAADRDALSGWG
....MTTEEGLDLLKLCVQELEKRMPMDFKG
LKYLSEEVIEKLVRSFTSATERHIQVGDG
....TVQVAEEAIVNAMRVLYYRDARSSRN
....LTKEEAIKLAASDAIQAGIWNDLGSGSN
....MTLEAAQGLLVEAVTAGILGDLGSGGN
....LSVEDALYLGRKRSILAAAHRDAYSGGS
....LEVEQAYDLARRAIYQATYRDAYSGGA
....LSPEEAYDLGRRAIAYATHRDSSYSGGV
....MSKEETVDFIKHSLSQAIKWDGSSGGV
....MTKEECLQFTANALALAMERDGSSGGV
....MSPEECRRFTTDAIALAMS RDGSSGGV

S 9



S 10



H 5



BETA_ta
PUP3_sc b3
C11_sc b4
C5_sc b6
PRE4_sc b7
PUP1_sc b2
MECL1_hu
PRE2_sc b5
X_hu
LMP7_hu
PRE3_sc b1
Y_hu
LMP2_hu

180 190 200
IDVAVITRKDGYVQLPTDQIESRIRKLGL
AVVYIIKKDEVVKRYLKMRQD.....
VIVKIVDKDGIRQVDDFQAQ.....
LEILIVTKDGVVRKEFYELKRD.....
FSLAIIDKNTGLTFKKNLQVENMKWDFAKD
VDVCVMEIGKDAEYLRNYLTPNVREEKQKS
VDACVITKT.GAKLRLTLSPTEPVKRSGR
VNLYHV.TEDGWIVYHGNHDVGEILFWKVKEE
VNLYHV.REDGWIRVS SDNVADLHEKYSGS
VNMYHM.KEDGWVKVESTDVSDLLHQYREA
IRMVVLTAAAGVERLIFYPDEYEQL.....
IRLAATIAESGVVERQVLLGDQIPKFAVATLP
IYLVTTAAAGVDRVILGNELPKFYDE....

210

220

L.....
.....
.....
IKGYGTQKI.....
YKFPRGTTAVLKESIVNIC.DIQEEQVDIT
YHFVPGTTAVLTQTVKPLTLELVEETVQAM
EGSFNNVIG.....
T.P.....
N.Q.....
P.A.....
.....

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WASHINGTON, D.C. 20005
Process for Purification

Fig.1d

B E T A _ t a	...	
P U P 3 _ s c	b 3	...
C 1 1 _ s c	b 4	...
C 5 _ s c	b 6	...
P R E 4 _ s c	b 7	...
P U P 1 _ s c	b 2	A ..
M E C L 1 _ h u		E/V/E
P R E 2 _ s c	b 5	...
X _ h u		...
L M P 7 _ h u		...
P R E 3 - s c	b 1	...
Y _ h u		...
L M P 2 _ h u		...

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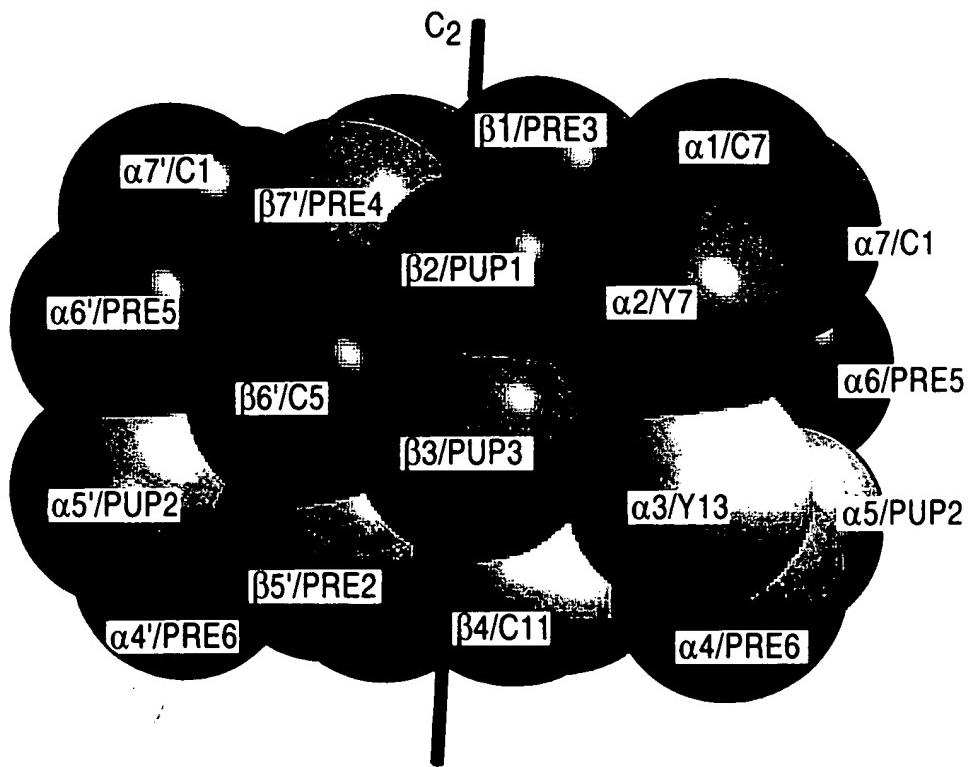


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Process for Purification

Fig.2

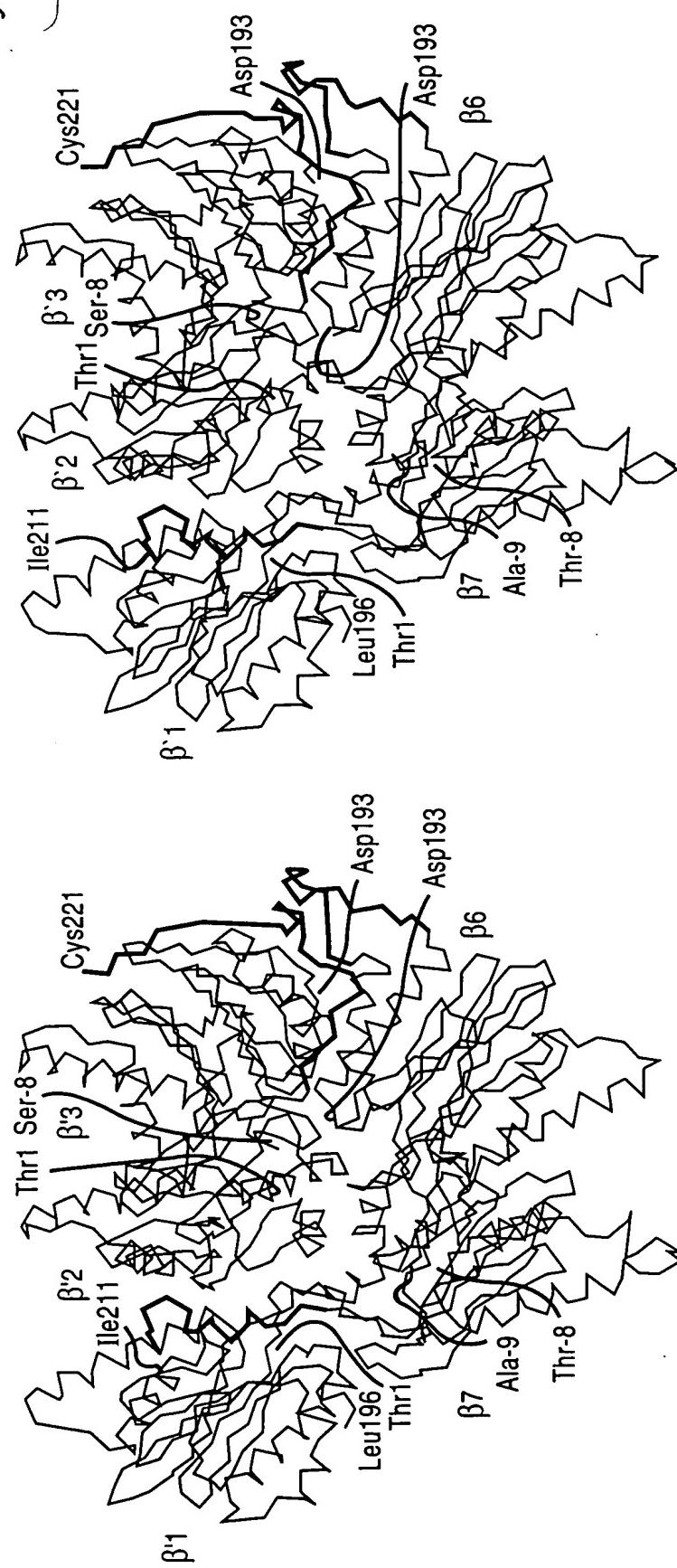


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Process for Purification

Fig.3



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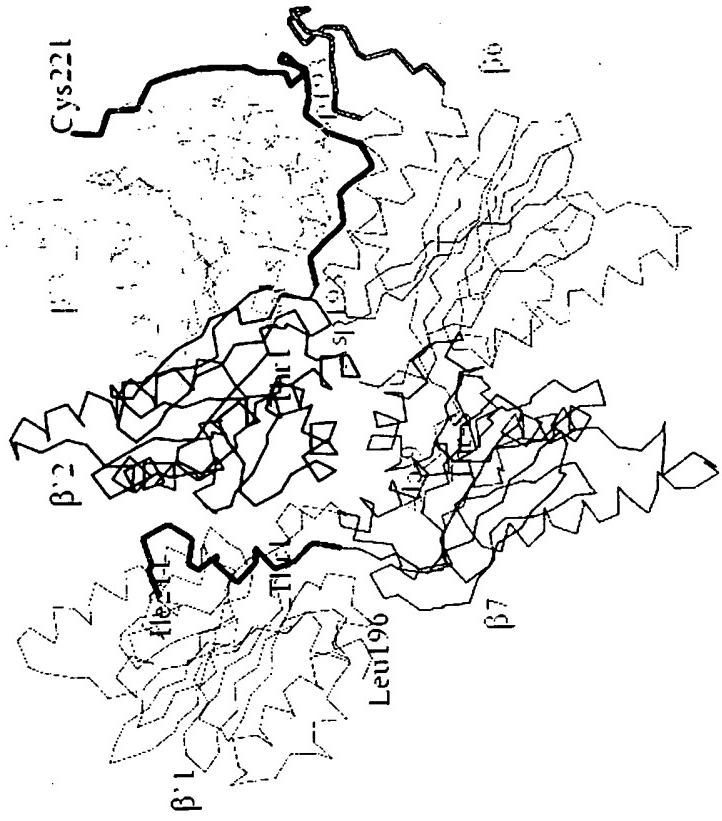
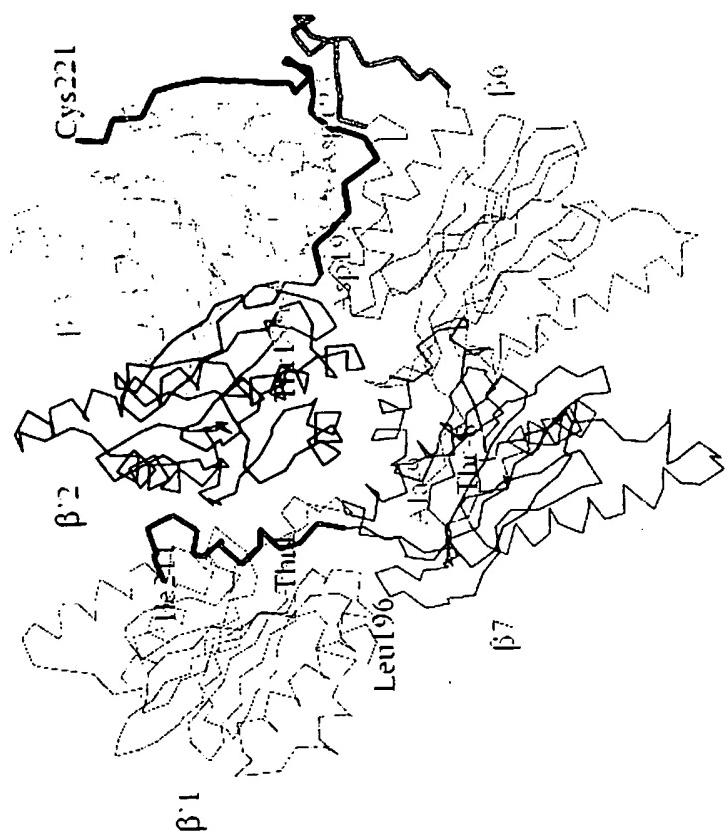


Fig. 3



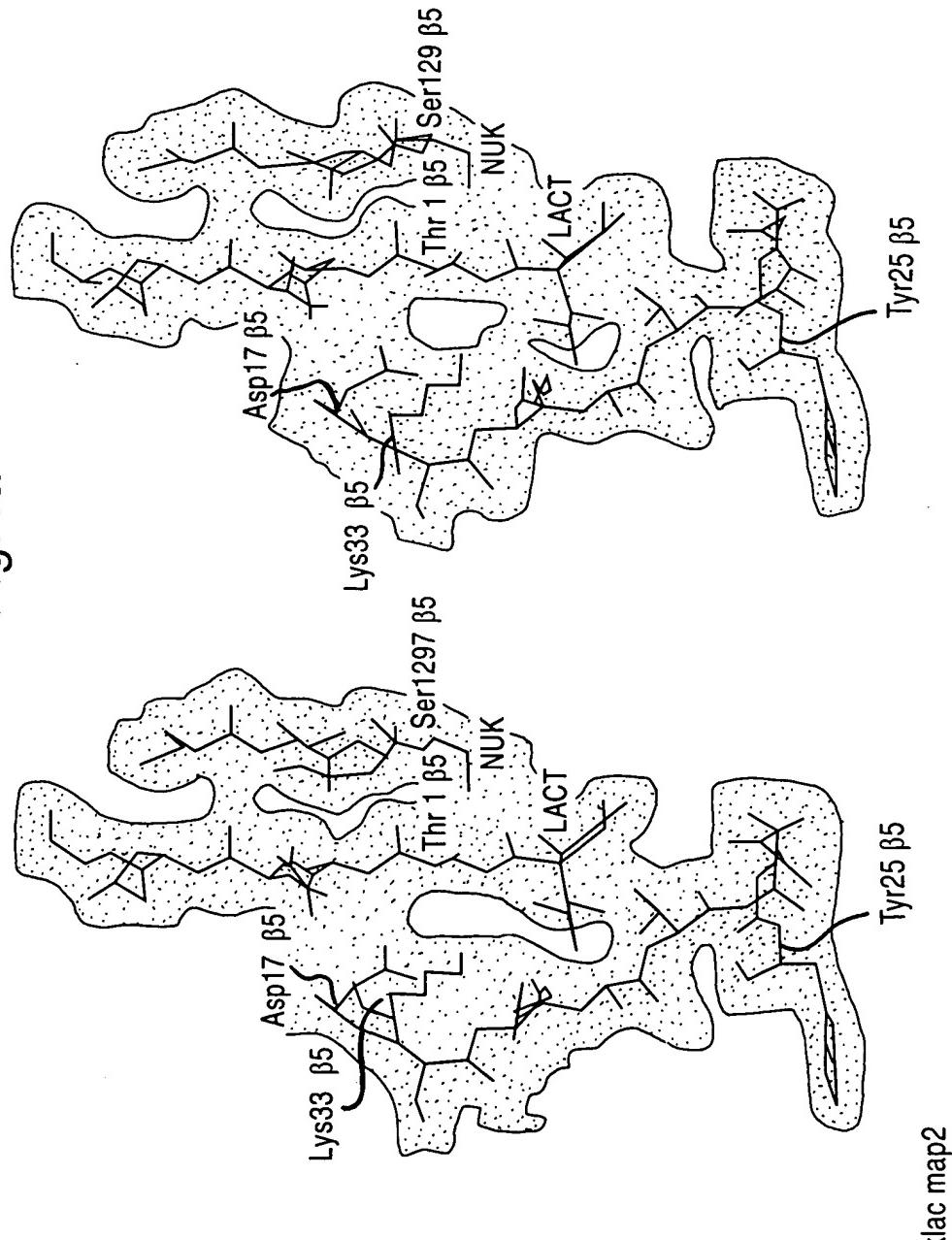
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Process for Purification

Fig. 4a



klac map2

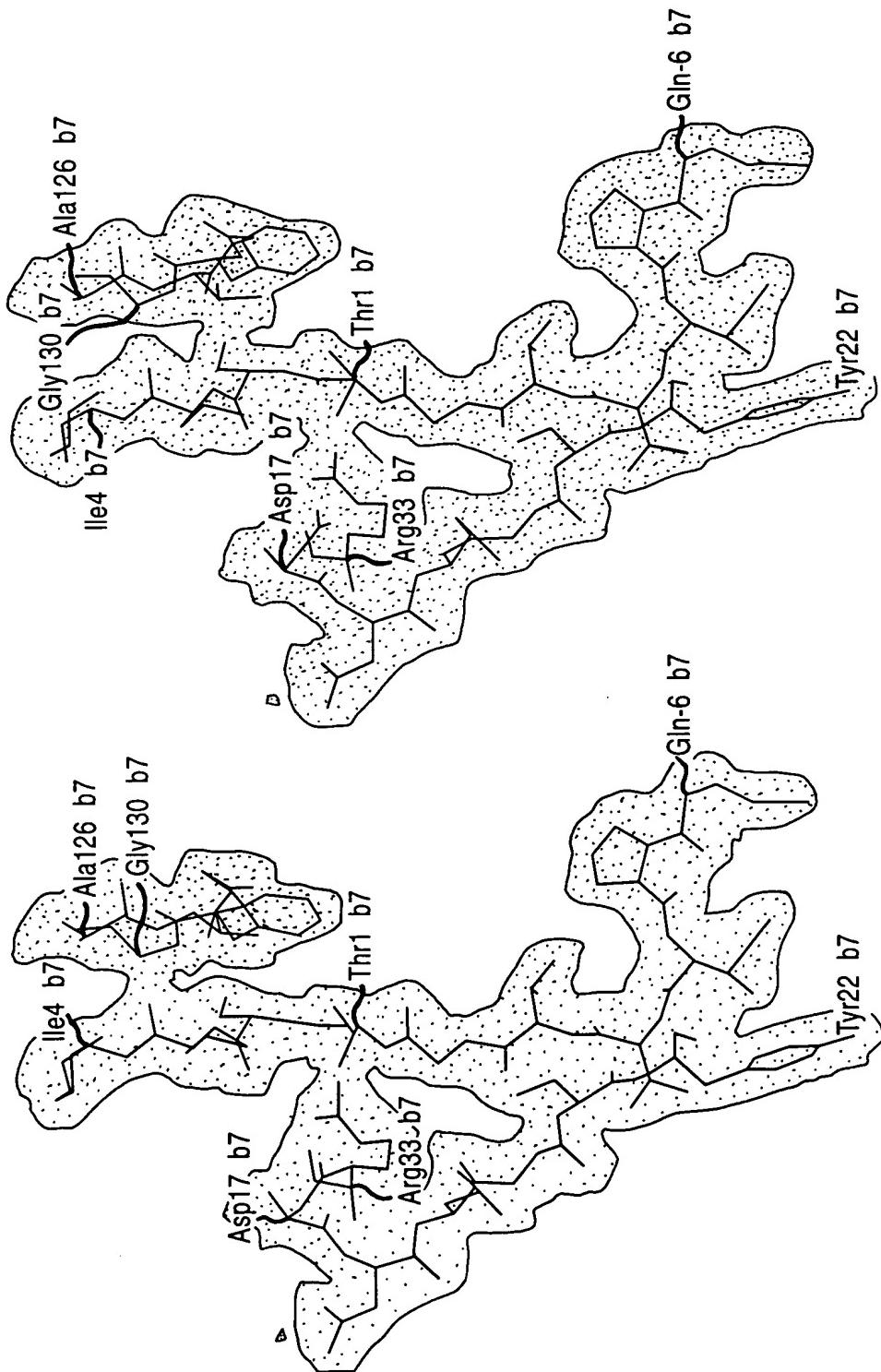


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Process for Purification

Fig. 4b



pre4 map2

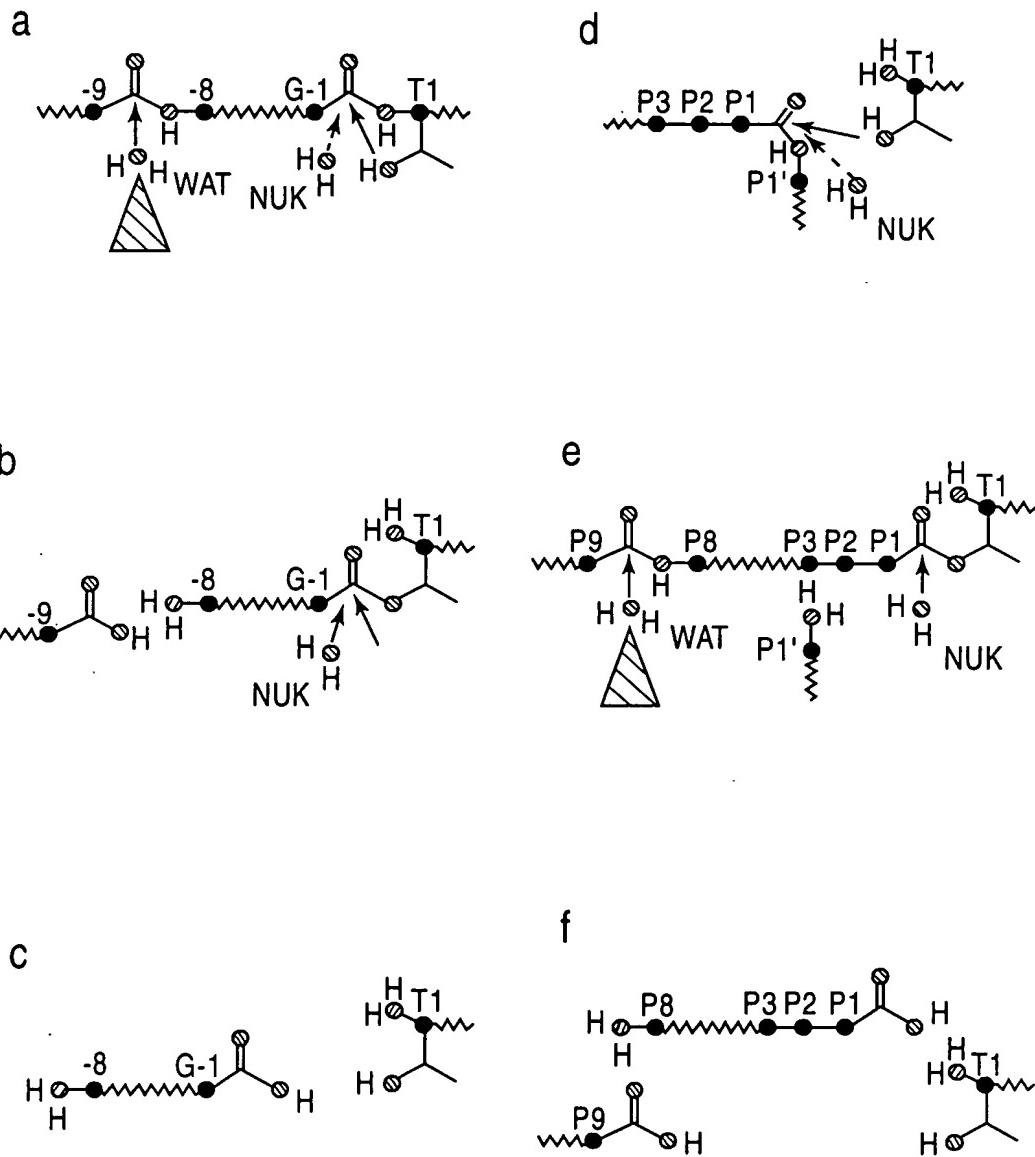


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Process for Purification

Fig.5



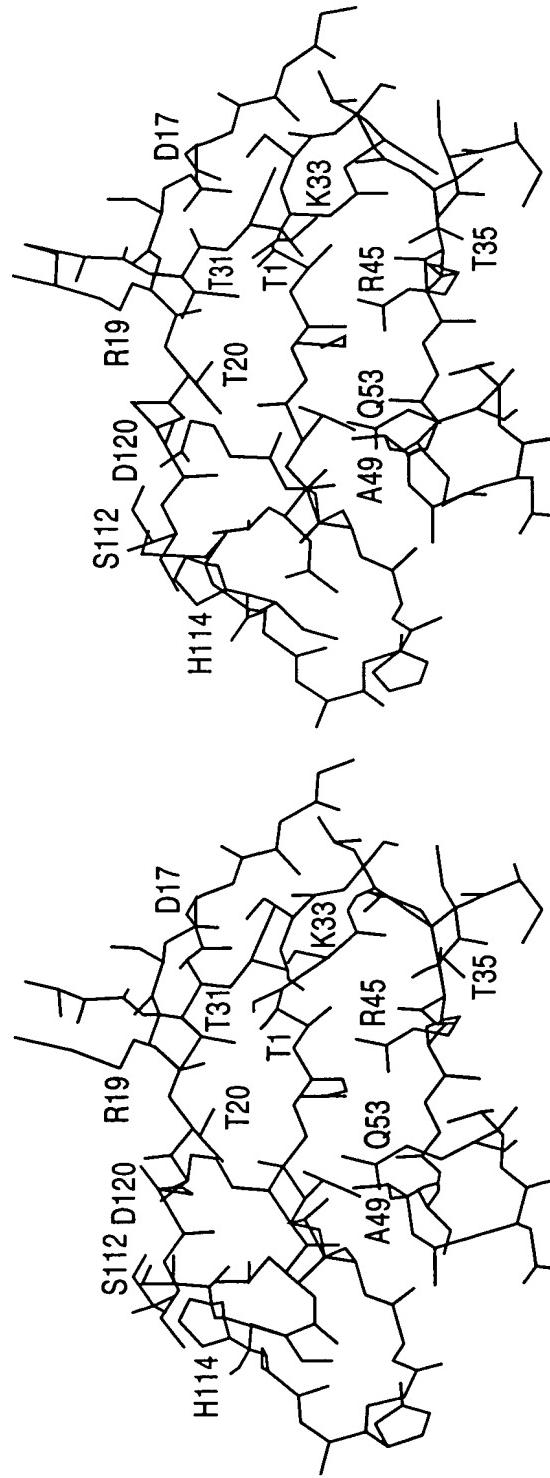
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Process for Purification

Fig. 6A



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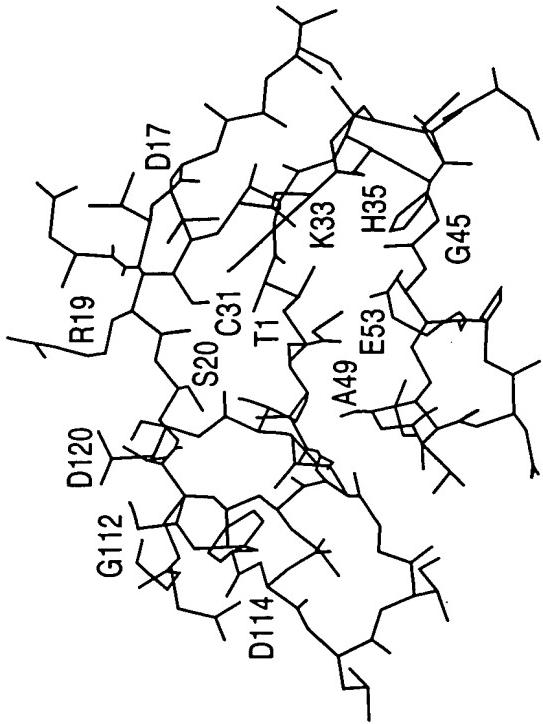
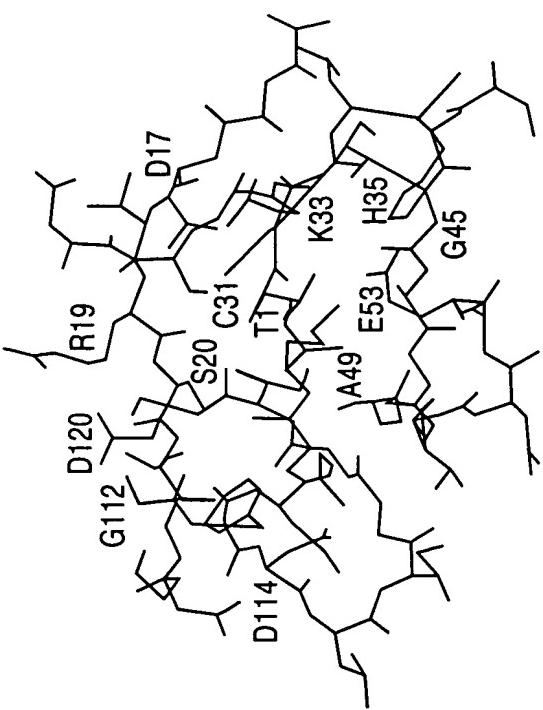


Fig. 6B



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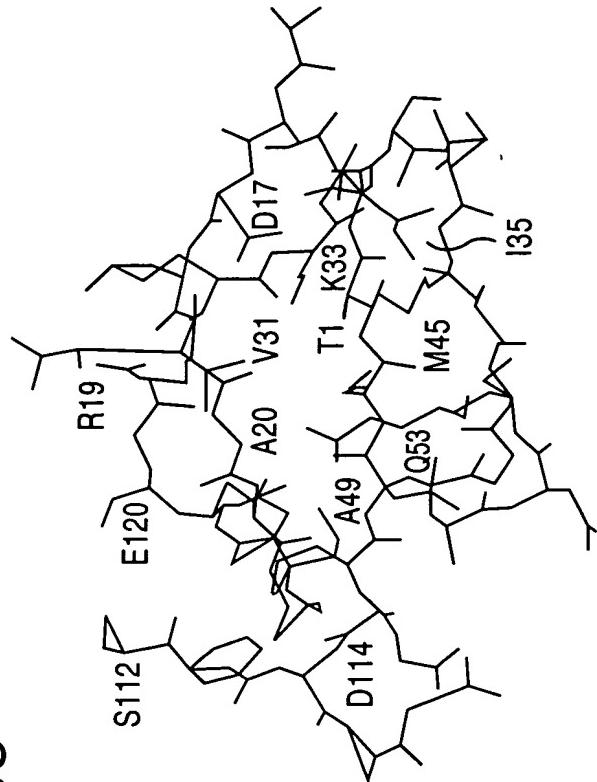
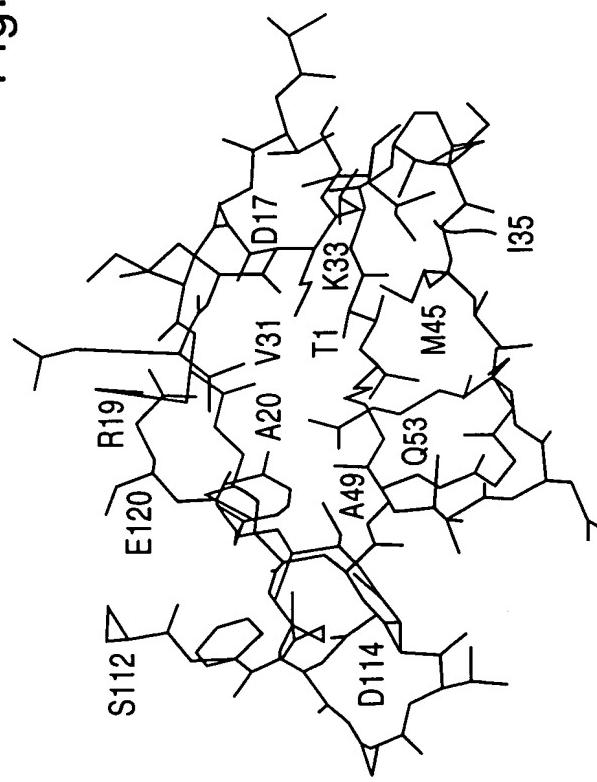


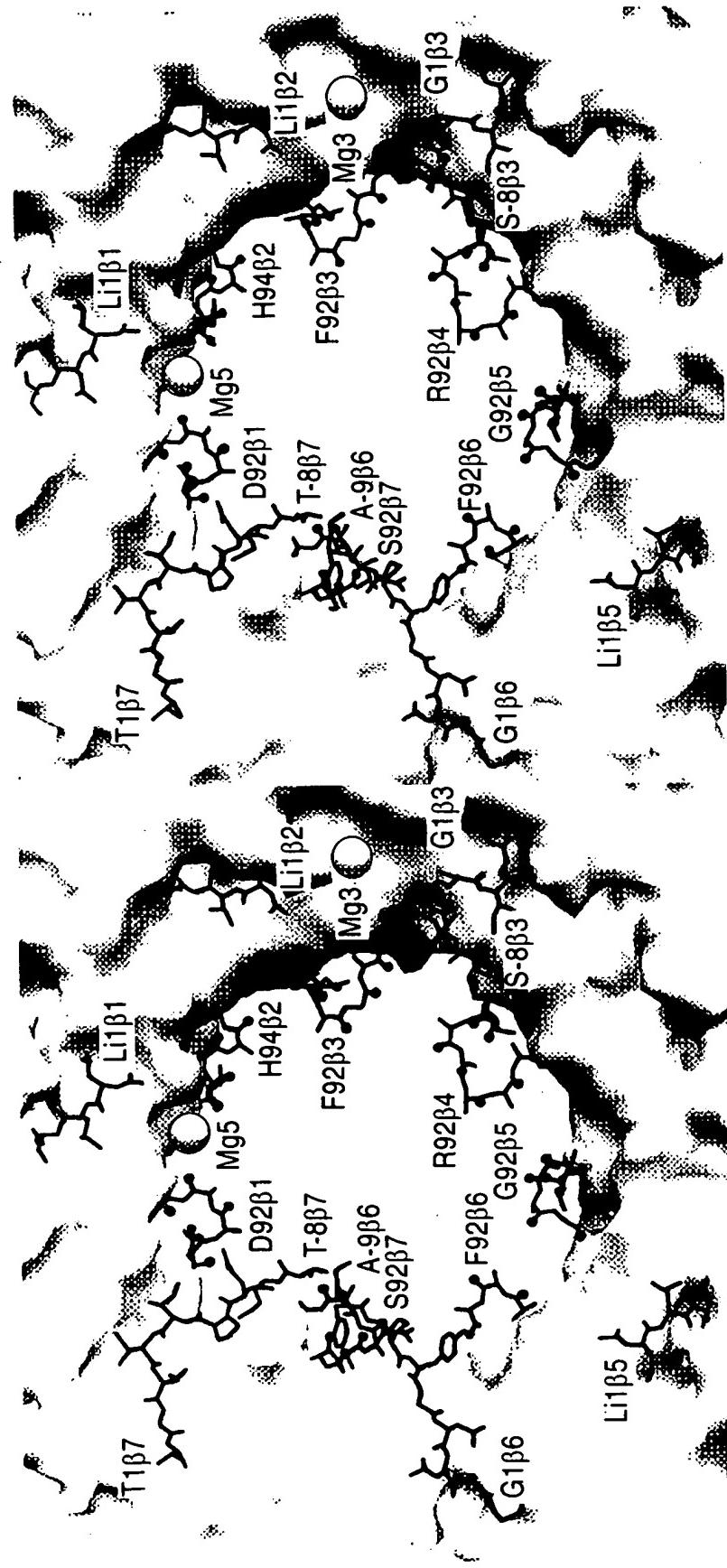
Fig. 6C



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Fig. 7



Process for Purification

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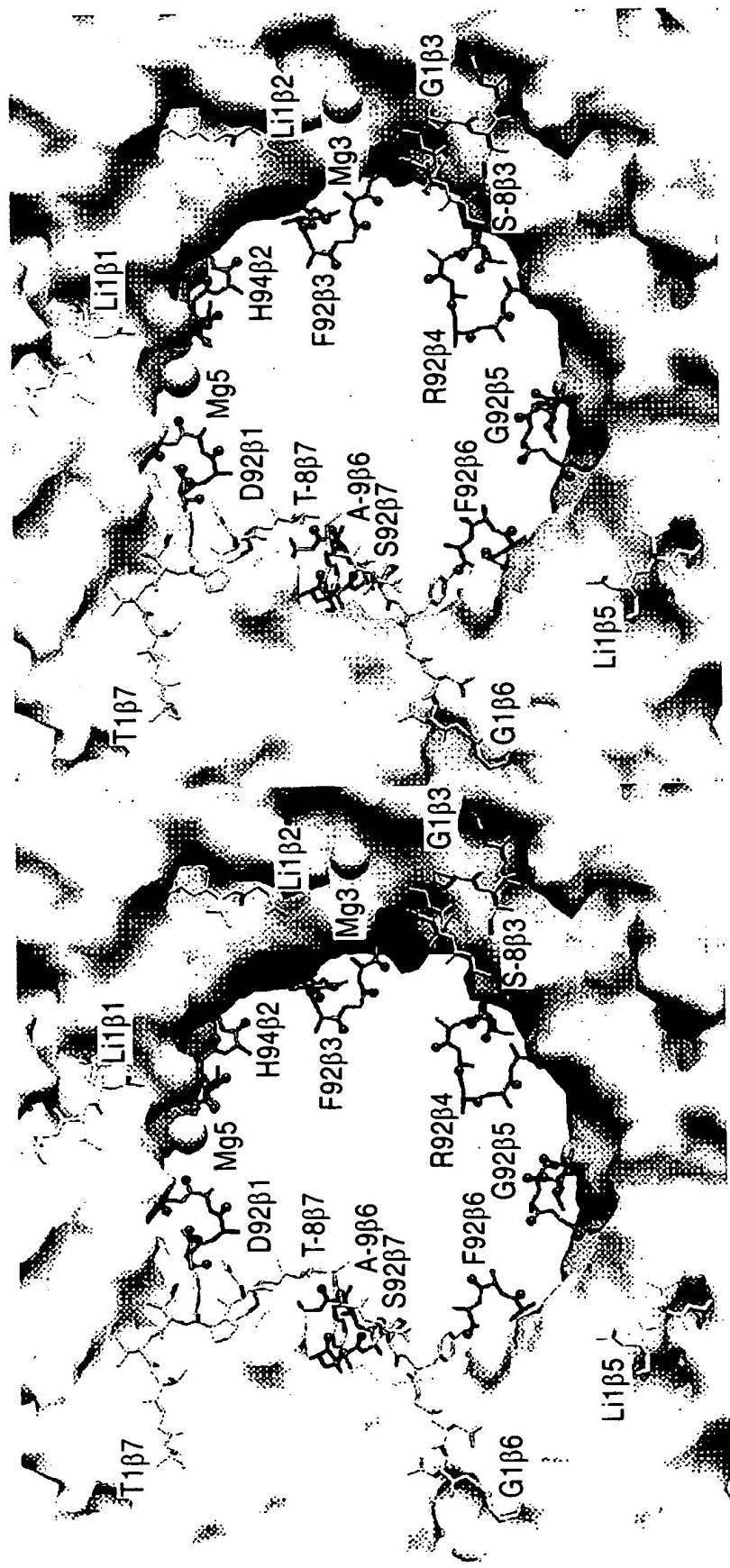
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Process for Purification

Fig. 7



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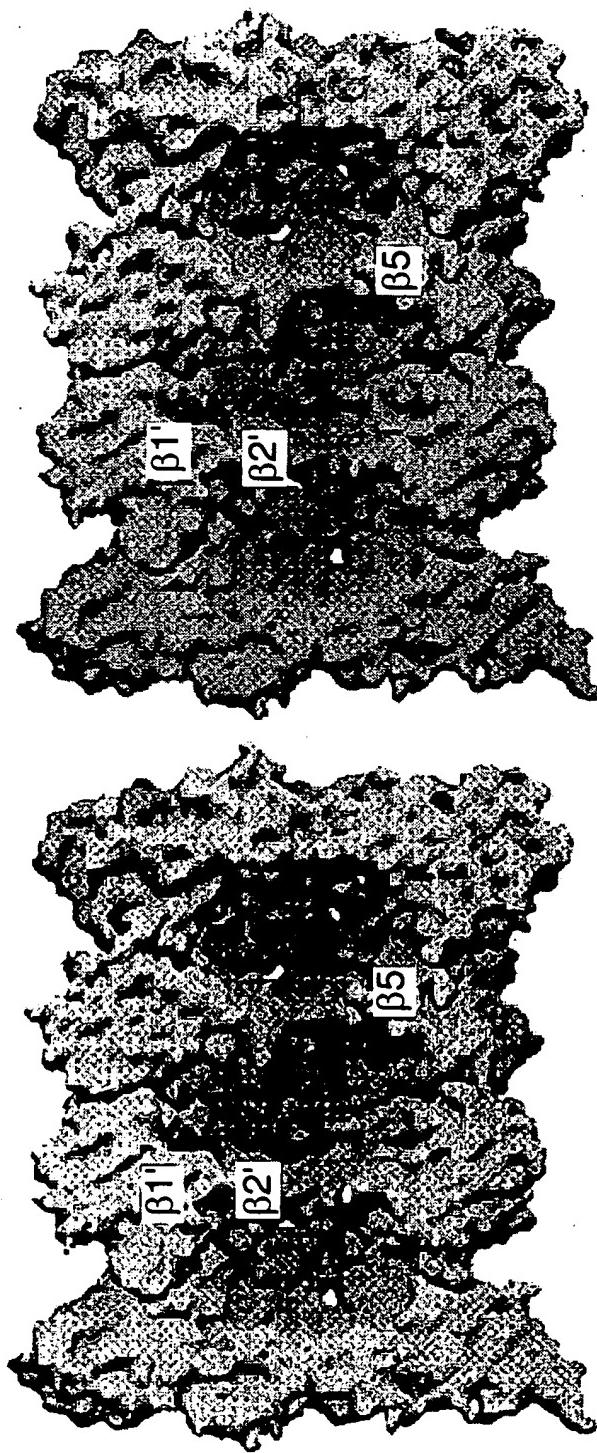
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Process for Purification.

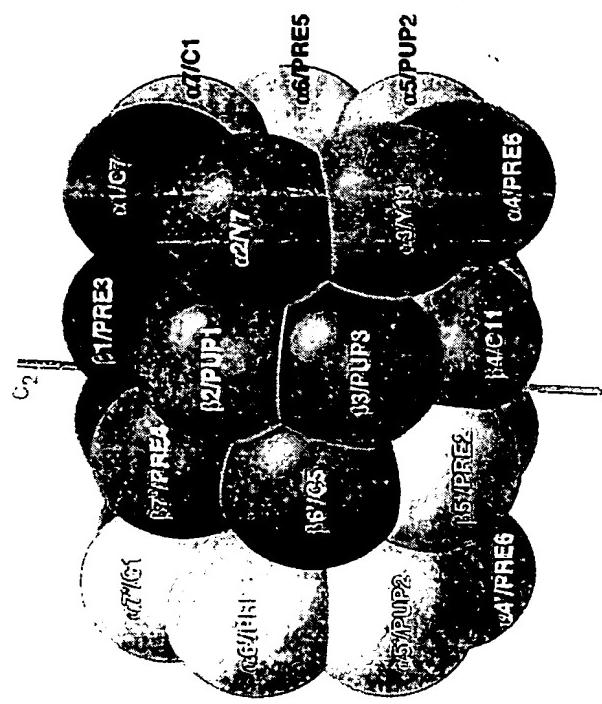
Fig.8



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Figur 1

H2
S1 → **S2** → **L** → **S3** → **S4** → **H1** → **S5** → **S6** → **H2**
S7 → **S8** → **H3** → **S9** → **S10** → **H4**
S11 → **H5** → **S12** → **H6** → **S13** → **H7** → **S14** → **H8** → **S15** → **H9** → **S16** → **H10** → **S17** → **H11** → **S18** → **H12** → **S19** → **H13** → **S20** → **H14** → **S21** → **H15** → **S22** → **H16** → **S23** → **H17** → **S24** → **H18** → **S25** → **H19** → **S26** → **H20** → **S27** → **H21** → **S28** → **H22** → **S29** → **H23** → **S30** → **H24** → **S31** → **H25** → **S32** → **H26** → **S33** → **H27** → **S34** → **H28** → **S35** → **H29** → **S36** → **H30** → **S37** → **H31** → **S38** → **H32** → **S39** → **H33** → **S40** → **H34** → **S41** → **H35** → **S42** → **H36** → **S43** → **H37** → **S44** → **H38** → **S45** → **H39** → **S46** → **H40** → **S47** → **H41** → **S48** → **H42** → **S49** → **H43** → **S50** → **H44** → **S51** → **H45** → **S52** → **H46** → **S53** → **H47** → **S54** → **H48** → **S55** → **H49** → **S56** → **H50** → **S57** → **H51** → **S58** → **H52** → **S59** → **H53** → **S60** → **H54** → **S61** → **H55** → **S62** → **H56** → **S63** → **H57** → **S64** → **H58** → **S65** → **H59** → **S66** → **H60** → **S67** → **H61** → **S68** → **H62** → **S69** → **H63** → **S70** → **H64** → **S71** → **H65** → **S72** → **H66** → **S73** → **H67** → **S74** → **H68** → **S75** → **H69** → **S76** → **H70** → **S77** → **H71** → **S78** → **H72** → **S79** → **H73** → **S80** → **H74**



Figur 2

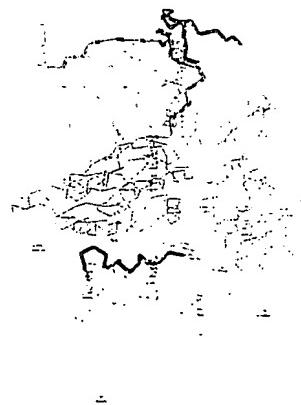
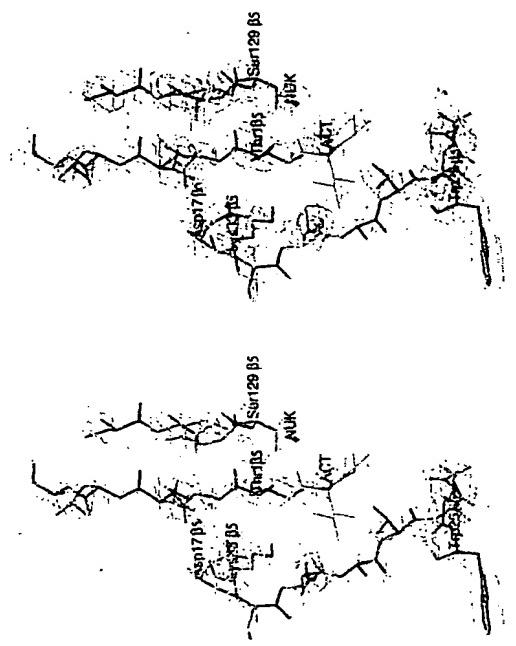


Figure 3



Figur 4a

klac map2

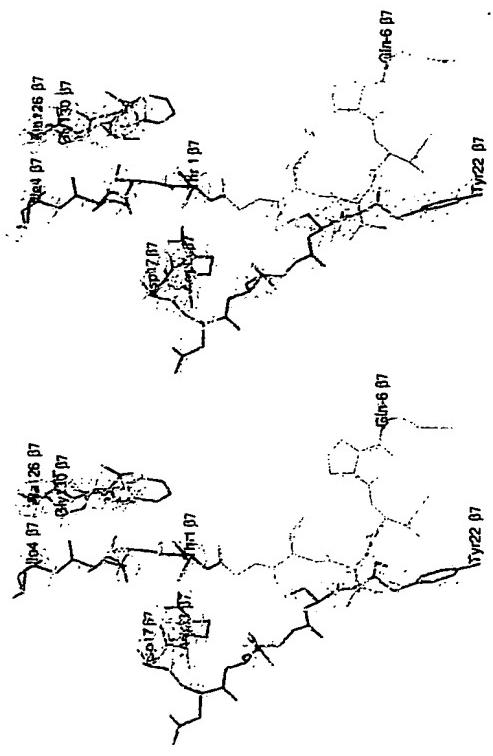
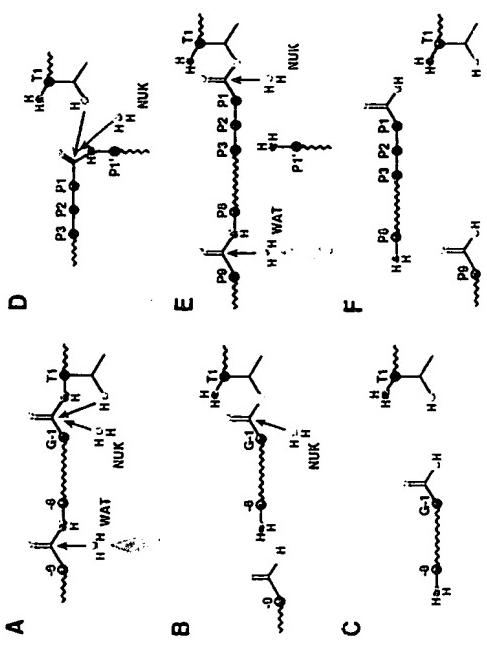
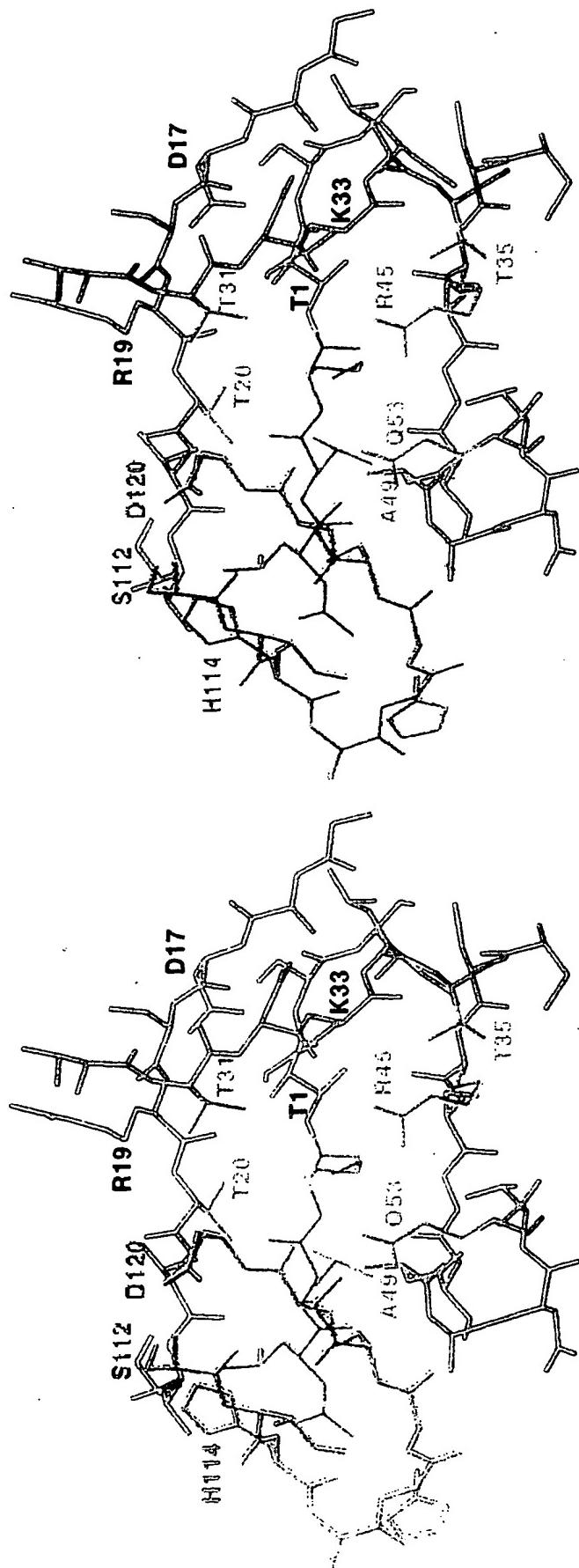


Figure 4b

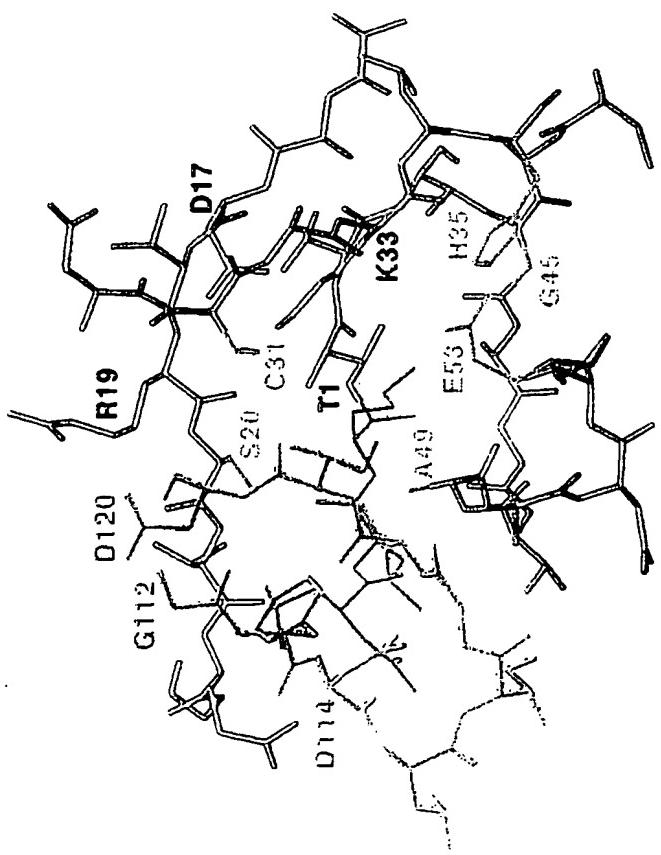
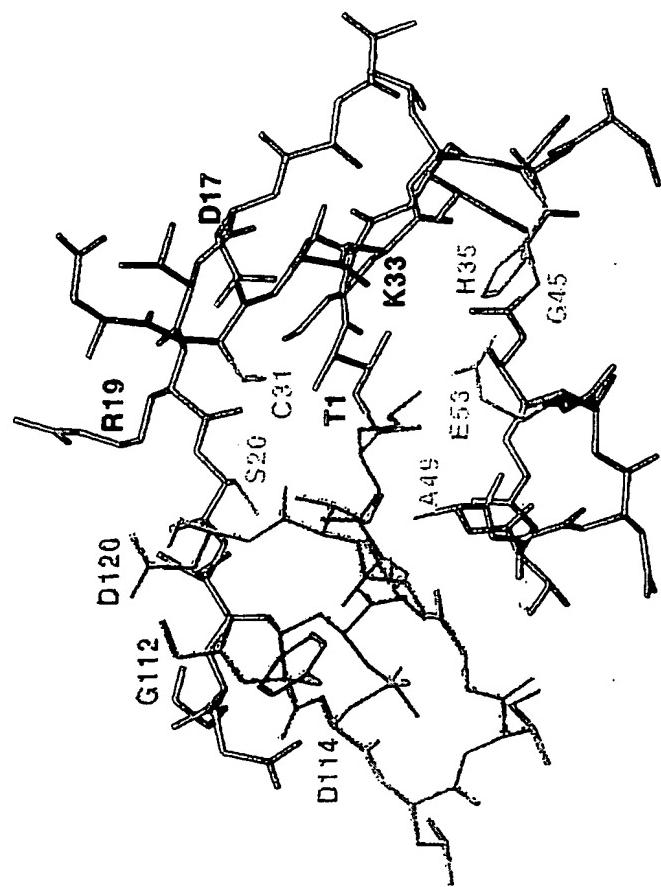
Figure 5

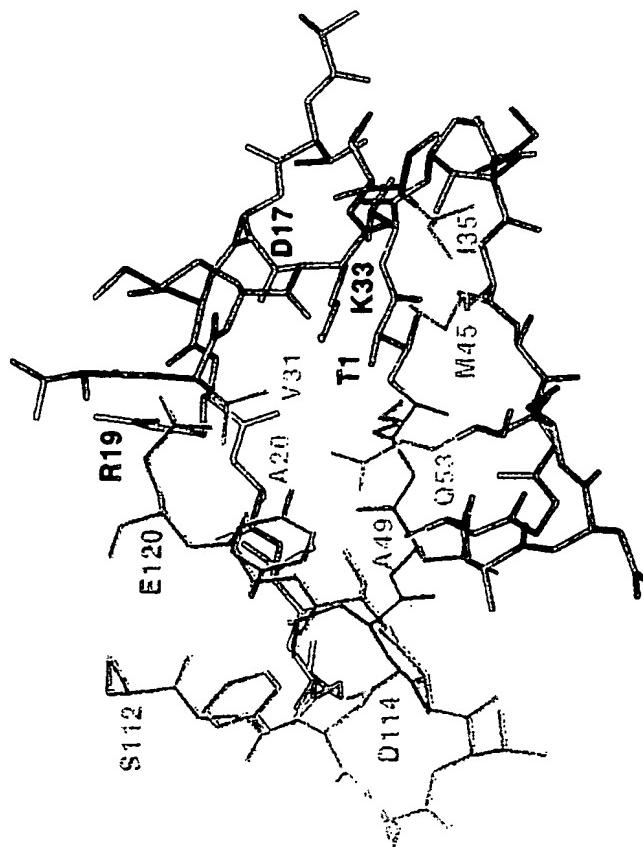
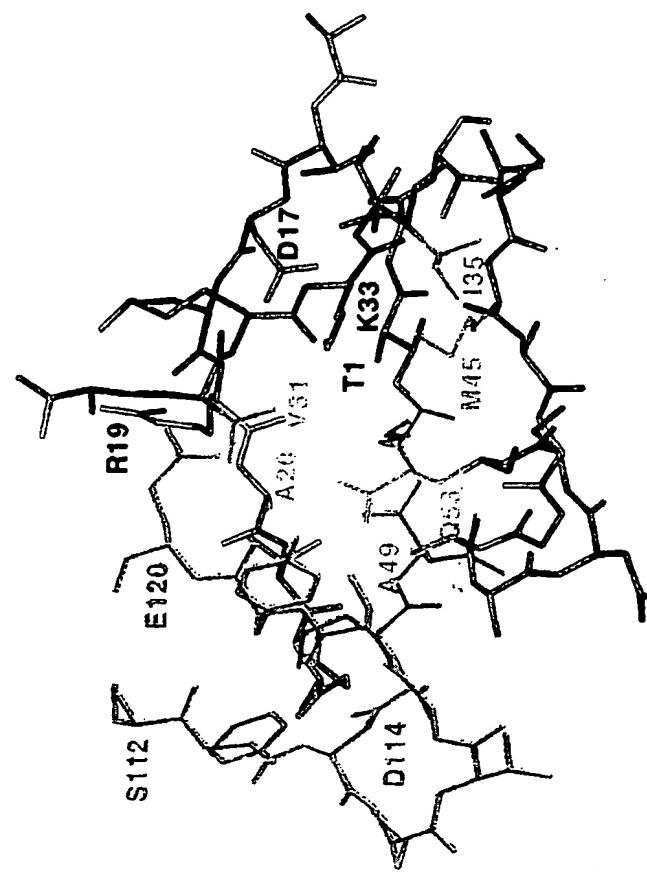


Figur 6a



Figur 6b





Figur 6c

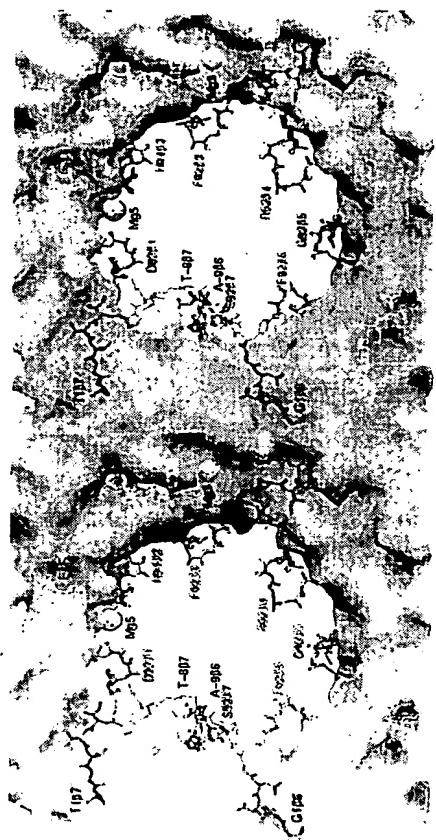


Figure 7

